

Agricultural Education in Haiti: Arising From the Rubble

Kitty F. Cardwell, PhD

National Institute of Food and Agriculture

May 26th, 2011

Earthquake in Port au Prince, 1.12.10



Role of agriculture in Haiti before and after the cataclysm

- Agriculture is the primary branch of the national economy in terms of contribution to the creation of national wealth (25% of the GNP)
- It is the principal source of revenue and employment in rural areas (more than 60% of the people)
- It is the sector responsible for about 50% of the available food and food security

NOTE: 50% of the food needs are *not* met due to weak performance of the ag sector.

Factors that limit the performance of the ag sector – according to out-going Minister of Agriculture

- Accelerated degradation of the natural resources and fertility of farm lands;
- Undeveloped agricultural finance system adapted to small scale agriculture;
- Limited access to principal inputs: improved seed, fertilizer, and pest control;
- Deficiency in agricultural and rural infrastructure: irrigation and drainage, farm to market roads, storage systems, rural electrification, food processing centers;
- Weak investment in animal husbandry and fisheries: no quantity or quality animal feeds; no information on diseases or prophylactic measures, lack of cold chain, fisheries organization, and insufficient zoosanitary management;
- Weak and/or inappropriate investment in crop production, crop protection, and phytosanitary management (with the exception of Mango);
- Natural disasters!

Public sector failure in the farm sector

- An historically unfavorable (since 1980s) government policy with inadequate budget allocated to public resources in the agricultural sector;
- Almost no new human resource development for applied agricultural research, extension, and/or technical management since the 1980s;
- Significant disconnect between the Ministry of Agriculture in PaP and the Departmental offices, research stations, and ag vocational schools;
- Thousands of foreign Governmental and Non-Governmental Organizations replacing/competing with the Haitian public sector.

Damage and loss to Haitian agricultural infrastructure from Jan. 12, 2010 earthquake

UN Post Disaster Needs Assessment

Faculty of Agriculture and Veterinary Medicine (FAMV) building, 8 faculty lost



New Private Ag and Med University Opened Dec 12, 2009

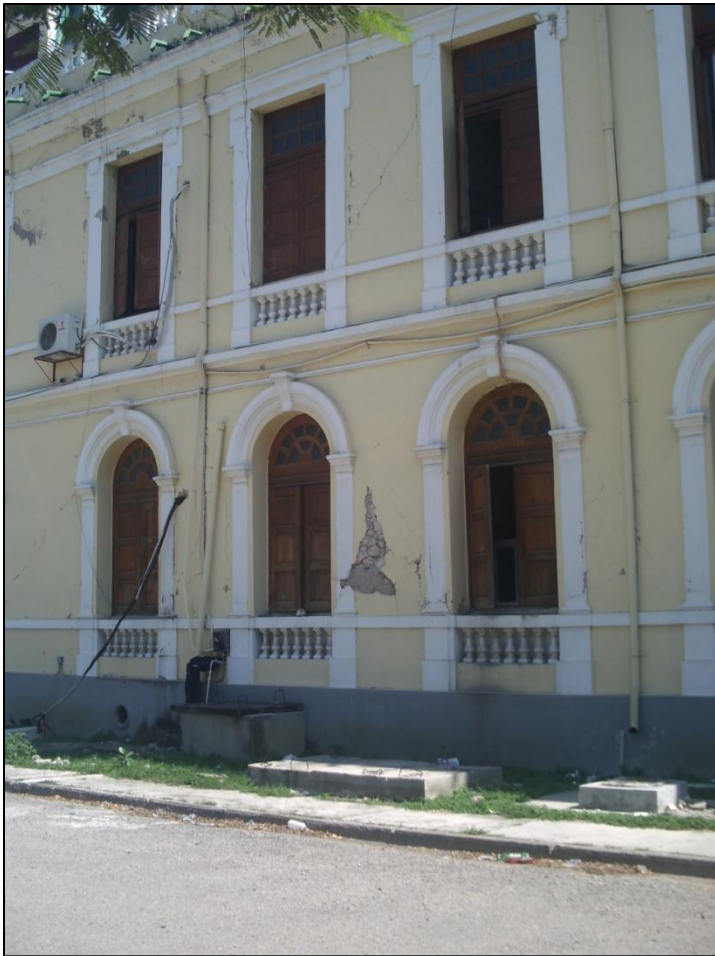


Quisqueya Student Union

16 students lost in quake



Ministry of Agriculture Building



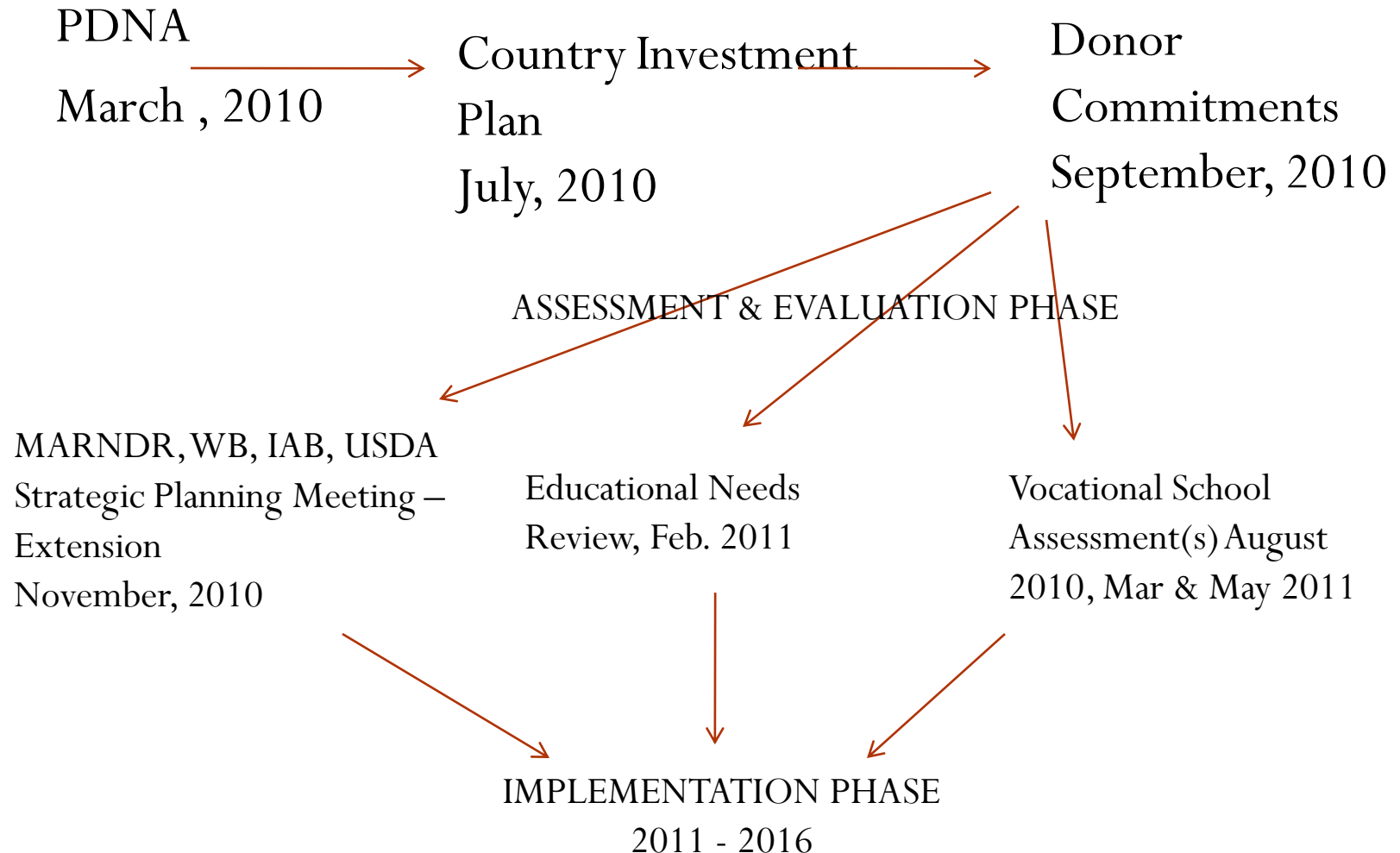
Post Disaster Needs Assessment Team under the mango trees



Aggravation de la Situation suite au Seisme du 12 Janvier 2010

DESCRIPTION	VALEUR DES PERTES en US
Infrastructures/ irrigation	2,050,750.00
Infrastructure / processing des aliments	375,000.00
Bâtiments Administratifs et techniques du Ministère de l'agriculture (Bureau Central)	23,650,000.00
Pertes estimées et dommages	31,275,750.00

Revitalization Process



Country Investment Plan

- Country-led plan, developed by Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) cabinet members, with
- Input from a 'technical writing committee'
- Required for donor pledges
- Presented to donors and approved
- Donors decide which elements of the plan they wish to fund

Three principal axes of intervention

Development of rural infrastructures

Watershed and forestry management

Irrigation and other rural infrastructures

Production and development of competitive market chains

Animal husbandry and Aquaculture

Access to farm inputs and machinery

Urban and peri-urban agriculture

Post harvest management and commercialization systems

Rural credit

Local production and humanitarian operations

Agricultural services and Institutions

Extension

Land tenure

Institutional support of public services

Strategic planning partners with the Haitian Ministry of Agriculture

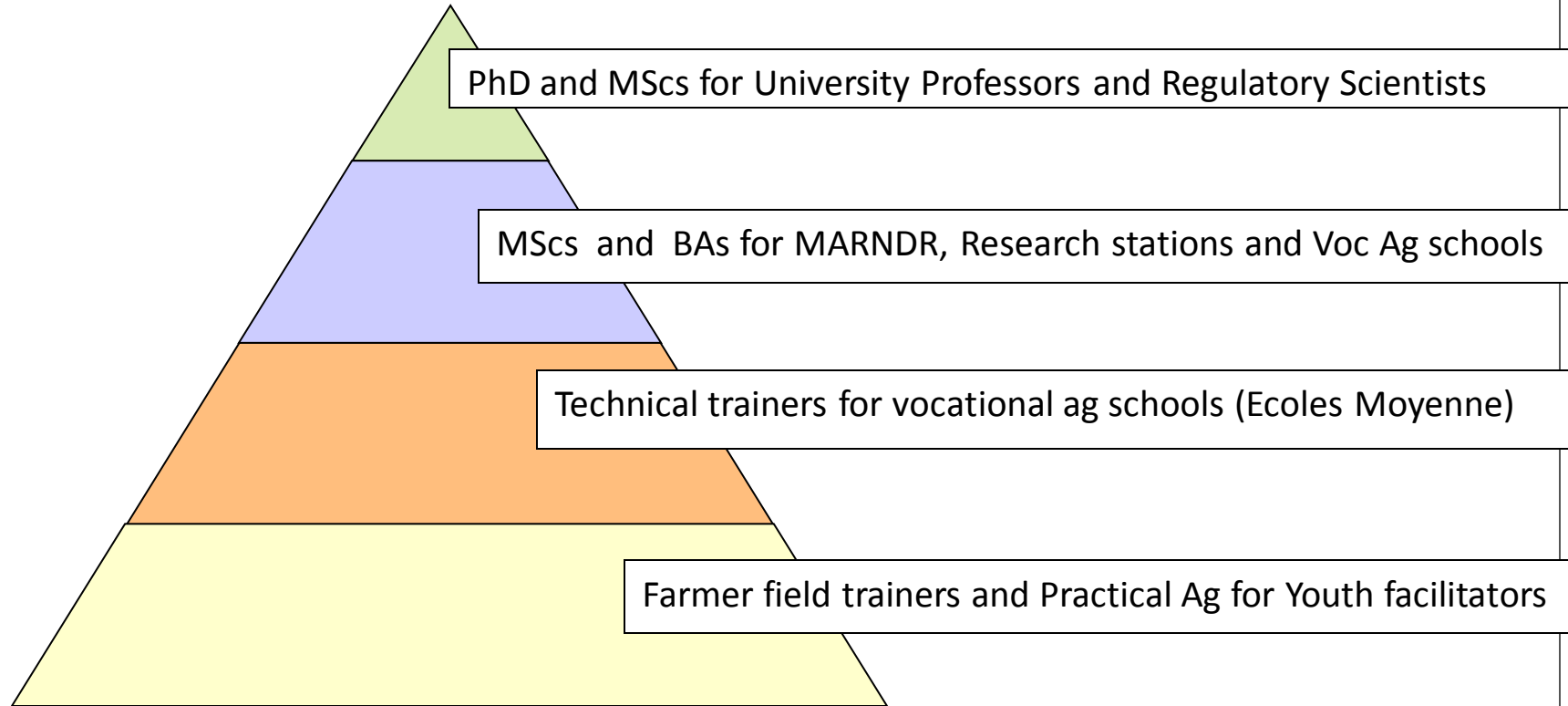
- World Bank
- Inter-American Development Bank
- French Cooperative Program- 'Agreenium'
- Canadian Government
- Inter-American Institute for Cooperation in Agriculture
- US Government
 - USAID
 - USDA NIFA (Land Grant Partnership, BIFAD), and
 - USDA Foreign Agriculture Service

The USAID PASA* and the role of USDA

- FAS coordinating needs and opportunities:
 - NIFA – lead in education & extension programs
 - NRCS - lead in soil survey (per NIFA - H. Bahn's rec)
 - NASS - lead in ag statistics and
 - ERS - lead in market information systems
 - APHIS - lead for plant health/ phytosanitary labs

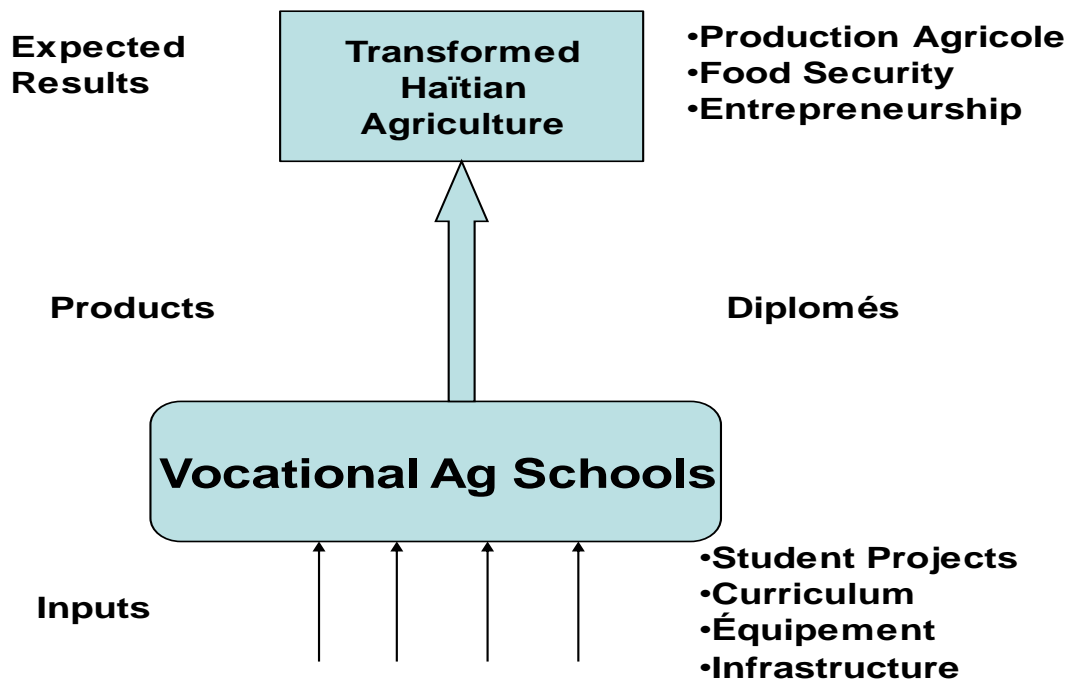
* Participating Agency Service Agreement

Agricultural education needs



Extension Vision

Relation between an Extension System and Vocational Ag Schools



Expected results determine the necessary inputs.

Analysis of Existing Agricultural Education in Haiti

Haitian Higher Ed

Diagnostic

- FAMV graduates about 25 Ingenere Agronomes/year
- There are several private universities that provide ag technical training
- None of the curricula are standardized, nor have any been modernized in 25 years
- FAMV graduates have no training in Extension nor much, if any, practical education due to lack of laboratories and field trials
- There is no combined research/education facility in Haiti

Policy Questions

- How many Ing Agrs are actually needed per year in Haiti?
- What is the profile of the Ing Agr graduate for extension, research, and education?

Current Actions

- USAID program with University of Florida on updating FAMV curriculum to include extension, and agri-business practicum.

Vocational Agriculture

Diagnostic:

- Public sector vocational level education programs have all but disappeared from Haiti since the 1980s
- There is no one Ministry that oversees technical and vocational education , causing the lack of advocacy and oversight (and complex politics);
- MARNDR still has statutory authority over the 'Ecoles Moyennes' with its Department de Formation por l'Entreprenariat Agricole (DFPEA)

Policy Questions:

- What policies will the new Minister of Agriculture and his cabinet develop relative to vocational technical education?
- Will DFPEA continue to oversee the 'Ecoles Moyennes'?
- What sources of financing will be available and how will the schools become self sustaining?
- How many vocational graduates can be absorbed into the economy per year?

Current Actions:

- World Bank, USDA, IDB have done various joint assessments and strategic plannings with MARNDR with the expection of investing in the Vocational Ag system

Farmer field schools and Extension

Diagnostic:

- Until 1970: There was a large system of extension in place
- Today, there is no recognized extension system, but the CIP talks of Farmer Field Schools that are still notional
- The Public Sector (MARNDR) has lost the leadership (coordination, control of strategic messages, training schedules, monitoring of training, etc) and it is now all done by various NGOs in project
- Each Department in Haiti has MARNDR offices with up to 5 Ing Agrs employed, primarily from FAMV; none purport to conduct extension or training; they are not connected with headquarters in PaP

Questions:

- What is the role of MARNDR to be in Extension? How will it be structured?
- Who will coordinate all of the actors, including NGOs?
- How will the activities be funded?

Current Actions:

- Extension Strategic Planning meeting held Nov 2010
- Connection of Departmental offices via internet to PaP and the Ecoles Moyennes

USDA Planned Education Activities

- A. Human resource development for MARNDR and FAMV
- B. Human resource development for vocational agriculture (Ecoles Moyennes)

Institutional needs for specialized human resources

- At MARNDR and FAMV
- Loss of many highly trained specialists to: better paid jobs with NGOs, the private sector, emigration to US and Canada, and to the EARTHQUAKE
- Needs are real and continue to weaken the two institutions
- More than 20 specialists are needed in animal sciences, plant sciences, soil fertility, rural sociology, extension, food technology, business enterprise

Human resource needs at MARNDR' s program directorates (1)

- Animal production and health
 - PATHOLOGY
 - EPIDEMIOLOGY
- Develop. Economics and rural marketing (DEFI)
 - ROOTS AND TUBERS
- Direction of plant production
 - LEGUMES
 - FRUITS
- Direction of forest resources (DRFS)
 - ADAPTATION OF AG AND ECOSYSTEMS TO CLIMATE CHANGES
 - CONSTRUCTION OF LAKES AND ENVIRONMENT MANAGEMENT

Human resource needs at MARNDR' s program directorates (2)

- Promotion of rural development
 - AG. EXTENSION
 - AG. DEVELOPMENT PLANNING
- Human Resources
 - PLANNING OF HUMAN RESOURCES
 - MANAGEMENT OF INFORMATION SYSTEMS
- Centers of research and development (CRDA)
 - PLANT BIOTECHNOLOGY
 - SOIL MICROBIOLOGY
- Monitoring and Evaluation
 - PROJECT MANAGEMENT

Priority specialty needs at MARNDR & FAMV

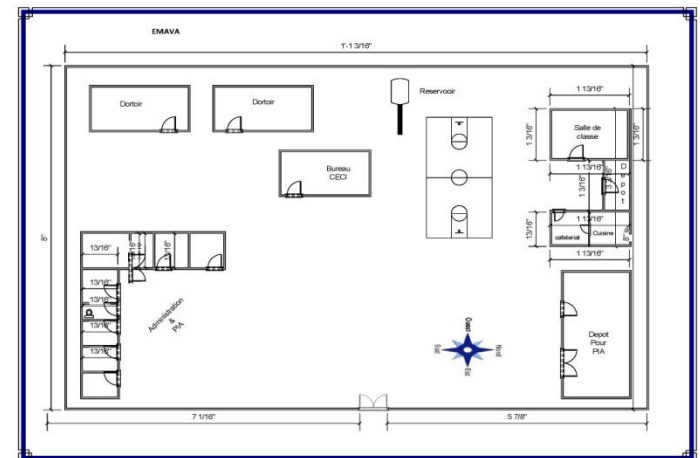
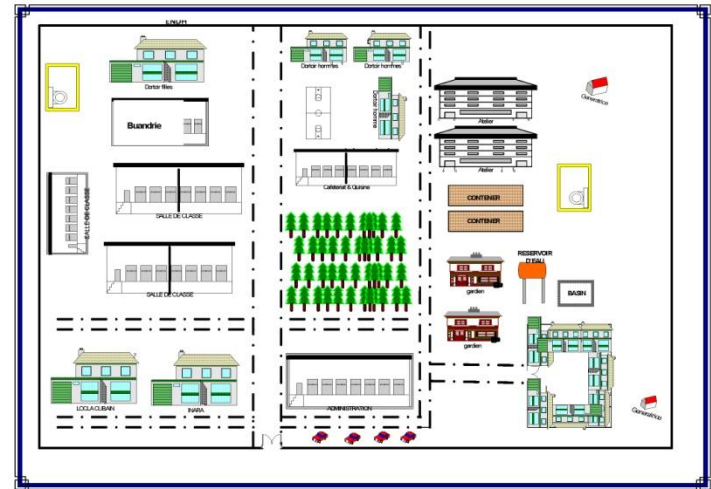
- PLANT SCIENCE (ROOT CROPS, CORN, SOGHUM, BANANA)
- BOTANY
- SEEDS IMPROVEMENT AND PRODUCTION
- PEDOLOGY AND SOIL FERTILITY
- SUSTAINABLE ENVIRONMENT AND AGROFORESTRY
- ANIMAL SCIENCE : NUTRITION, PRODUCTION (GOATS, BEEF, DAIRY, SWINE)
- POULTRY AND RABBIT
- GENETICS, REPRODUCTION, BREED IMPROVEMENT
- AG. ECON, PROMOTION OF ENTREPRENEURSHIP
- COMMUNICATION AND AG. EXTENSION
- AG. EDUCATION

ASSESSMENT OF VOCATIONAL AG SCHOOLS



Findings from the assessment of the Vocational Agriculture schools

- Review of 8 schools finds 4 campuses still in place,
- None has functioned as a Vocational Ag school since the 1980s,
- All could be revitalized as schools and ready to enroll students very quickly,
- School administrators need training to develop competencies in modern practices and to learn to develop social capital,
- A curriculum development teams will be assembled.



Desired Outcomes

and
Expected Timeline

Desired human resource development outcomes – Short Term (1-2 years)

- US Land Grant Universities and international partners step in to help Haiti in coordinated way,
- On-line and video conferenced lectures (in French) are organized,
- Practical and applied graduate education in US Universities has begun,
- Ecoles Moyennes are revitalized physically and directors' competencies to operate their schools enhanced,
- Vocational education curriculum (in French/ Creole) is developed,
- Voc ed trainers are prepared with relevant curricula and material support,
- Recruitment of 1st cohort of students in 35 years!

Desired outcomes – Medium Term (3-5 years)

- Vocational ag, technical schools, and research centers are revitalized and graduating X # of *appropriately* educated students per year;
- Ministry of agriculture is repopulated with trained/retrained human resource team, decentralized and in significant participating role across country;
- University faculty positions repopulated and strengthened;
- Haitian and US LGU REE institutional and human resource infrastructure actively engaged.

Desired outcomes – 5-10 years

- Haiti's Food and Agricultural Sector are stable and productive because:
 - Haitian agricultural ed is providing a good pipe-line of technical professionals,
 - Haitian Ministry of Ag is revitalized, modernized, decentralized and functioning in a facilitative mode,
 - Haitian private sector has access to good information, technical assistance & resources
 - US finds parity and partnership with Haitian institutions,
 - Research needs and integration evolve with the improved landscape.

Merci pour votre attention!